

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (currently amended) A battery comprising:
a positive electrode;
a negative electrode having a collector layer selected from the group consisting of a foil including a metal wherein the metal is not copper and does not form an alloy with lithium, and a copper foil covering the metal; and
an electrolyte including a polymer compound selected from the group consisting of radically-polymerized monofunctional monomers, multifunctional monomers, and mixtures thereof;
wherein said polymer compound is synthesized by polymerization at 95°C or lower.
2. (previously presented) A battery according to claim 1, wherein the metal is more noble than copper with respect to oxidation-reduction potential.
3. (original) A battery according to claim 1, wherein the metal is nickel or chromium.
4. (canceled)
5. (previously presented) A battery according to claim 1, wherein the negative electrode further comprises a material capable of occluding and releasing lithium.
6. (previously presented) A battery according to claim 5, wherein the material is a carbonaceous material.

7. (previously presented) A battery according to claim 1, wherein the positive electrode comprises a lithium composite oxide.

8. (currently amended) A battery comprising;
a positive electrode;
a negative electrode having a collector layer selected from the group consisting of a foil including a metal wherein the metal is not copper and does not form an alloy with lithium, and a copper foil covering the metal;
an electrolyte including a polymer compound selected from the group consisting of radically-polymerized monofunctional monomers, multifunctional monomers, and mixtures thereof wherein said polymer compound is synthesized by polymerization at 95°C or lower; and
a separator.

9. (previously presented) A battery according to claim 8, wherein the metal is more noble than copper with respect to oxidation-reduction potential.

10. (original) A battery according to claim 8, wherein the metal is nickel or chromium.

11. (canceled)

12. (previously presented) A battery according to claim 8, wherein the negative electrode further comprises a material capable of occluding and releasing lithium.

13. (previously presented) A battery according to claim 12, wherein the material is a carbonaceous material.

14. (previously presented) A battery according to claim 8, wherein the positive electrode comprises a lithium composite oxide.

15. (currently amended) A battery comprising:

a battery device including a positive electrode, a negative electrode, an electrolyte, and a package member enclosing the battery device;

wherein the negative electrode has a collector layer selected from the group consisting of a foil including a metal wherein the metal is not copper and does not form an alloy with lithium, and a copper foil covering the metal; ~~and~~

wherein the electrolyte includes a polymer compound selected from the group consisting of radically-polymerized monofunctional monomers, multifunctional monomers, and mixtures thereof; and

wherein said polymer compound is synthesized by polymerization at 95°C or lower.

16. (previously presented) A battery according to claim 15, wherein the metal is more noble than copper with respect to oxidation-reduction potential.

17. (original) A battery according to claim 15, wherein the metal is nickel or chromium.

18. (canceled)

19. (previously presented) A battery according to claim 15, wherein the negative electrode further comprises a material capable of occluding and releasing lithium.

20. (previously presented) A battery according to claim 19, wherein the material is a carbonaceous material.

21. (previously presented) A battery according to claim 15, wherein the positive electrode comprises a lithium composite oxide.

22. (previously presented) A battery according to claim 15, wherein the package member comprises a laminate film wherein a polymer compound film, a metal film, and a polymer compound film are laminated in that order.

23. (currently amended) A battery comprising:
a positive electrode;
a negative electrode; and
an electrolyte wherein said electrolyte includes a polymer compound ~~selected from the group consisting of~~ synthesized by polymerization of radically-polymerized monofunctional monomers, ~~multifunctional monomers, and mixtures thereof~~ at 95°C or lower.

24. (previously presented) A battery according to claim 23, wherein the positive electrode comprises a collector layer and a mixture layer.

25. (previously presented) A battery according to claim 24, wherein the collector layer comprises aluminum or aluminum foil.

26. (previously presented) A battery according to claim 24, wherein the mixture layer comprises positive electrode materials selected from the group consisting of lithium composite oxides containing lithium, lithium composite sulfides, metal sulfides, compounds soluble in metal oxides, oxides, and mixtures thereof.

27. (currently amended) A battery according to claim 26, wherein the metal sulfides are selected from the group consisting of TiS_2 , MoS_2 , and NbSe_2 ~~and~~ V_2O_5 .

28. (previously presented) A battery according to claim 23, wherein the negative electrode comprises a collector layer and a mixture layer.

29. (previously presented) A battery according to claim 28, wherein the collector layer comprises a foil including a metal wherein the metal is not copper and does not form an alloy with lithium.

30. (previously presented) A battery according to Claim 28, wherein the collector layer comprises a copper foil covering a metal wherein the metal is not copper and does not form an alloy with lithium.

31. (previously presented) A battery according to Claim 28, wherein the mixture layer comprises negative electrode materials selected from the group consisting of materials capable of occluding and releasing lithium, and materials capable of dissolving and depositing lithium.

32. (previously presented) A battery according to Claim 31, wherein the materials capable of occluding and releasing lithium are carbonaceous materials.

33. (previously presented) A battery according to Claim 32, wherein the carbonaceous materials are selected from the group consisting of non-graphitizable carbon, graphitizable carbon, graphite, pyrocarbons, cokes, grassy-carbons, calcinated organic polymer compounds, carbon fibers, activated carbon and mixtures thereof.

34. (previously presented) A battery according to claim 31, wherein the materials capable of occluding and releasing lithium have the formula $D_sE_tLi_u$ wherein D comprises a metal element and semiconductor element capable of forming an alloy or compound with lithium, wherein E comprises a metal element and a semiconductor element wherein said elements are not lithium or D, and wherein $s > 0$, $t \geq 0$, and $u \geq 0$.

35. (previously presented) A battery according to claim 34, wherein the elements comprising D are selected from the group consisting of carbon, silicon, germanium, tin, lead, alloys, compounds, and mixtures thereof.

36. (previously presented) A battery according to claim 31, wherein the materials capable of occluding and releasing lithium are selected from the group consisting of metal oxides and polymer materials.

37. (previously presented) A battery according to claim 36, wherein the metal oxide is tin oxide.

38. (previously presented) A battery according to claim 36, wherein the polymer materials are selected from the group consisting of polyacetylene, polypyrrole, and mixtures thereof.

39. (previously presented) A battery according to claim 31, wherein the materials capable of dissolving and depositing lithium are selected from the group consisting of a lithium metal, a lithium alloy, and mixtures thereof.

40. (previously presented) A battery according to claim 39, wherein the metal is selected from the group consisting of aluminum, tin, zinc, lead, silicon, gallium, indium, cobalt, titanium, cadmium, and mixtures thereof.

41. (previously presented) A battery according to claim 39, wherein the alloy is selected from the group consisting of aluminum, tin, zinc, lead, silicon, gallium, indium, cobalt, titanium, cadmium, and mixtures thereof.

42. (previously presented) A battery according to claim 23, wherein the monofunctional monomers are selected from the group consisting of esters, ethers, and fluorines.

43. (previously presented) A battery according to claim 23, wherein the esters are selected from the group consisting of methacrylic acid ester, acrylic ester, dimethacrylate ester, trimethacrylic acid ester, diacrylic esters, and mixtures thereof.

44. (previously presented) A battery according to claim 23, wherein the multifunctional monomers have more than two polymerized functional groups in a molecule.